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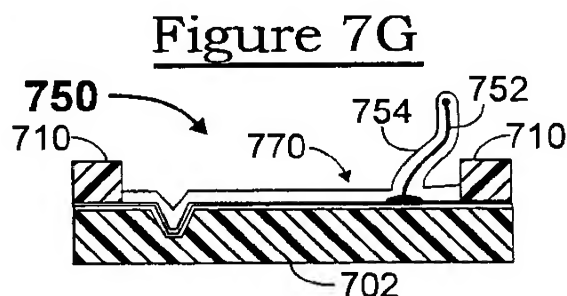
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(54) 【発明の名称】 犠牲基板を用いた相互接続部及び先端の製造

(57) 【要約】

相互接続要素 (752)、及び相互接続要素 (752) 用の先端構造 (770) が、電子コンポーネント (784) への後続する実装のために、犠牲基板 (702) 上に先ず製造される。このようにして、電子コンポーネント (784) は、製造工程時に「危険に晒されて」いない。犠牲基板 (702) は、コアとして比較的軟質の伸長要素 (752) を有する複合相互接続要素とすることができる、相互接続要素 (752) と、比較的硬質の (弾性材料) 保護膜 (754) との間に、所定の空間関係を確立する。相互接続要素 (752) は、先端構造 (770) 上に製造することも、電子コンポーネント (784) に先ず実装することも、又は相互接続要素 (752) の自由端に連結された先端構造 (770) とすることもできる。片持ち梁として形成される先端構造 (770) が記載されている。



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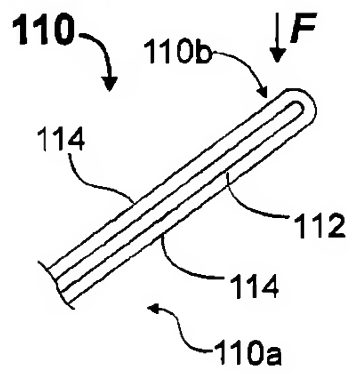
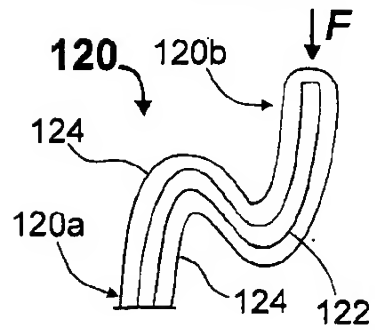
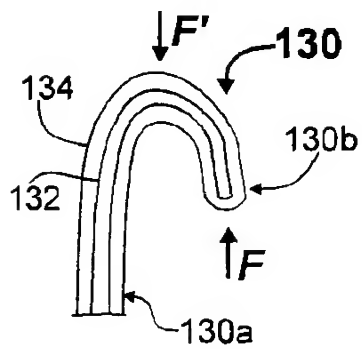
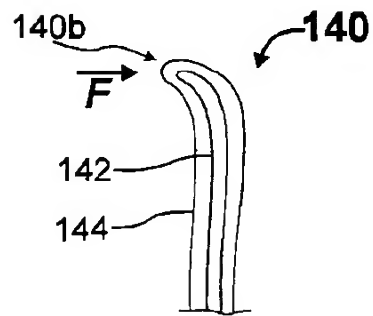
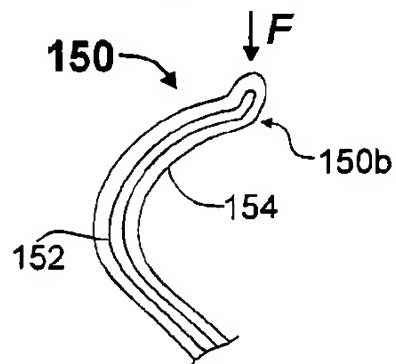
Figure 1AFigure 1BFigure 1CFigure 1DFigure 1E

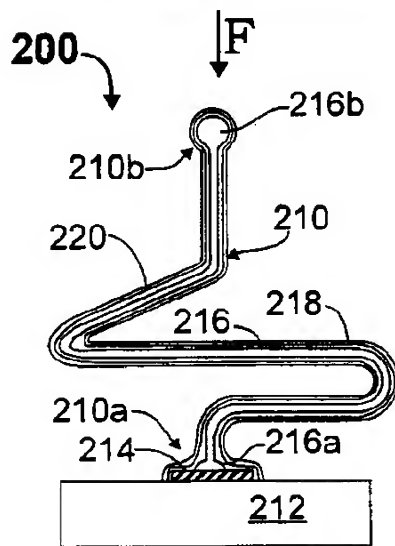
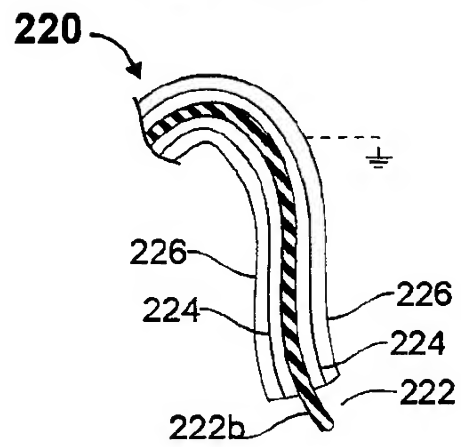
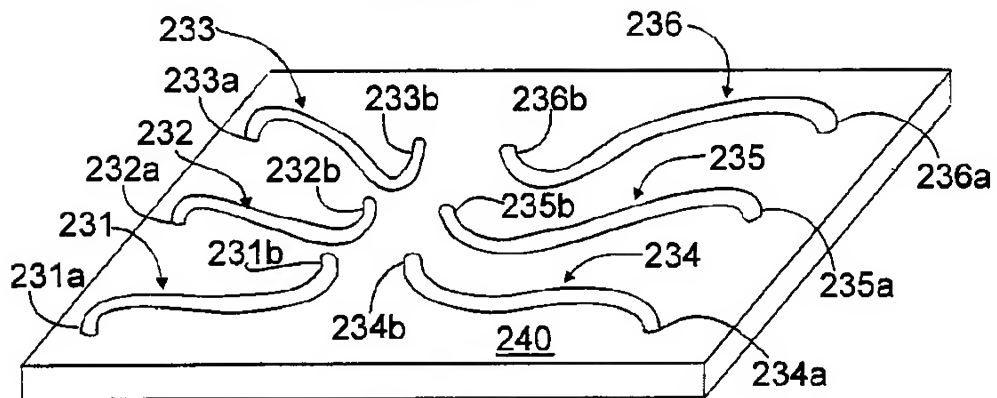
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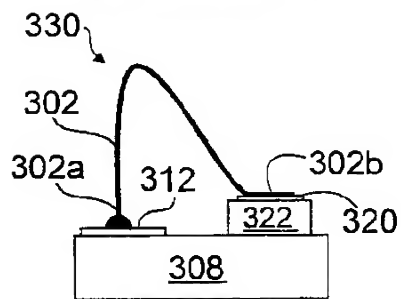
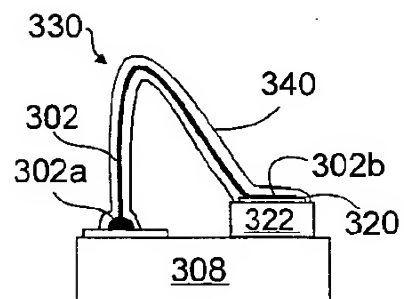
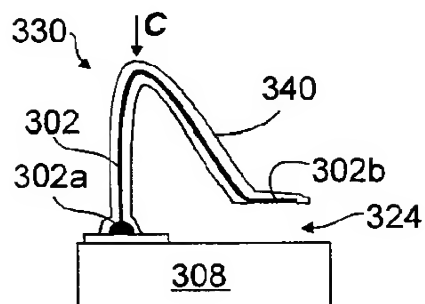
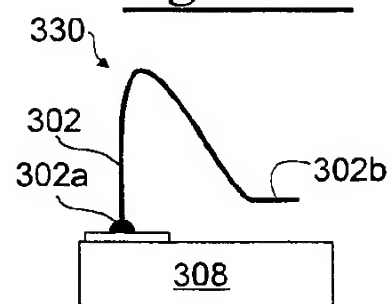
Figure 3AFigure 3BFigure 3CFigure 3D

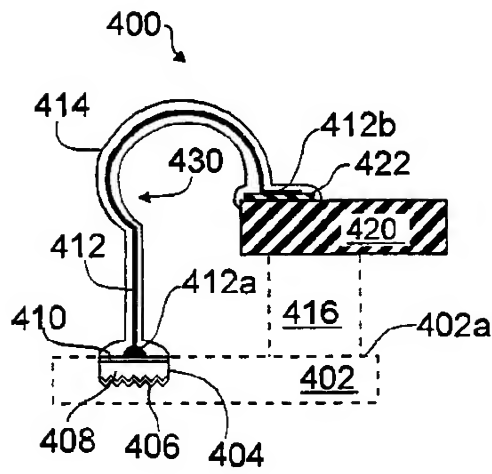
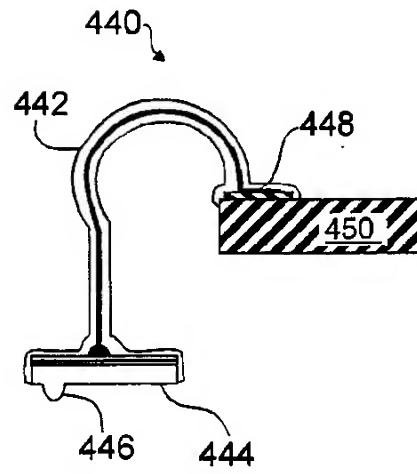
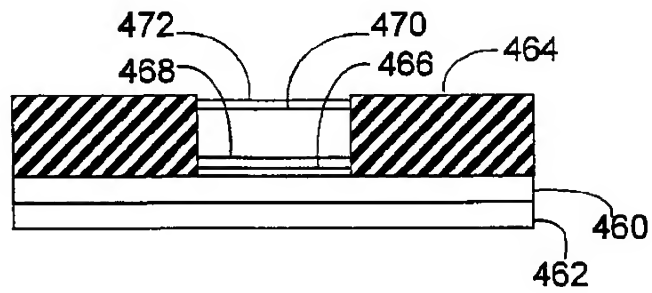
Figure 4AFigure 4BFigure 4C

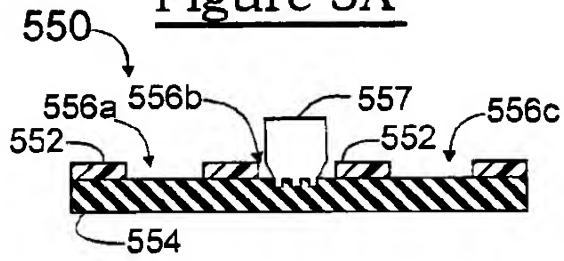
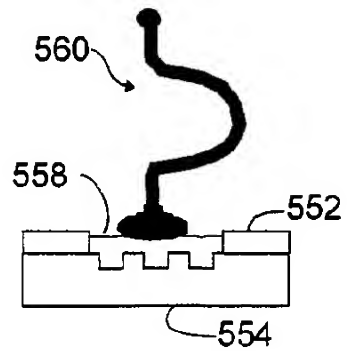
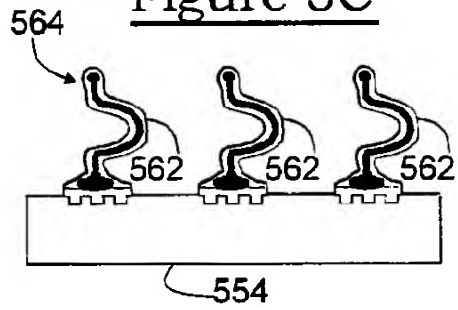
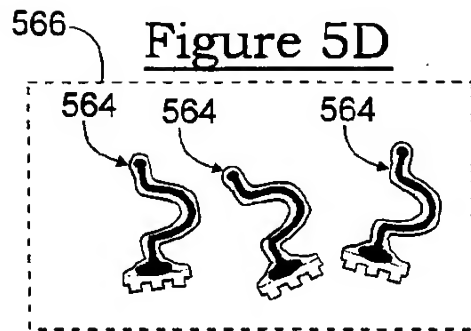
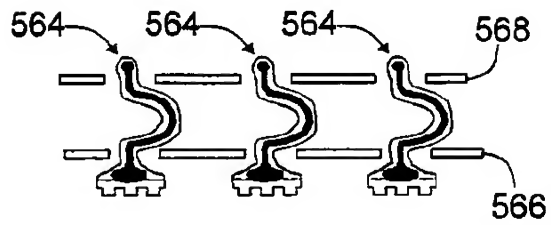
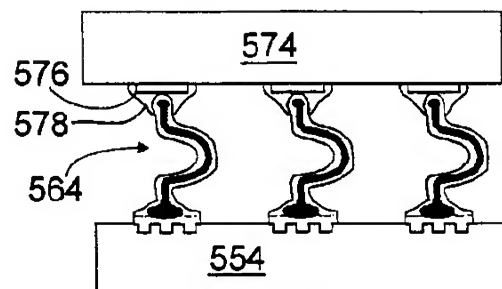
Figure 5AFigure 5BFigure 5CFigure 5DFigure 5EFigure 5F

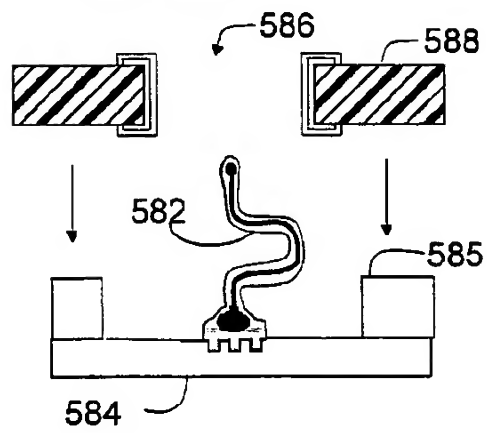
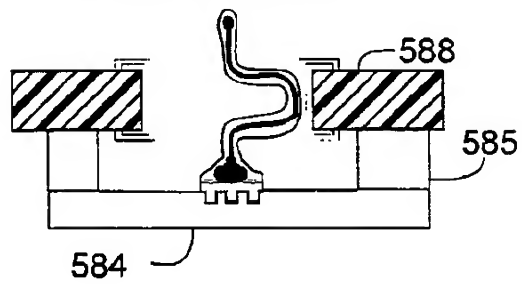
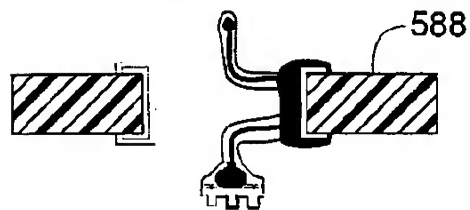
Figure 5GFigure 5HFigure 5I

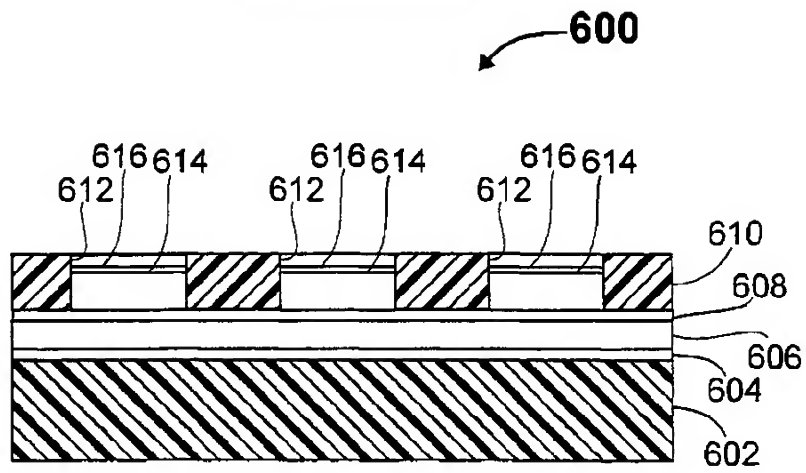
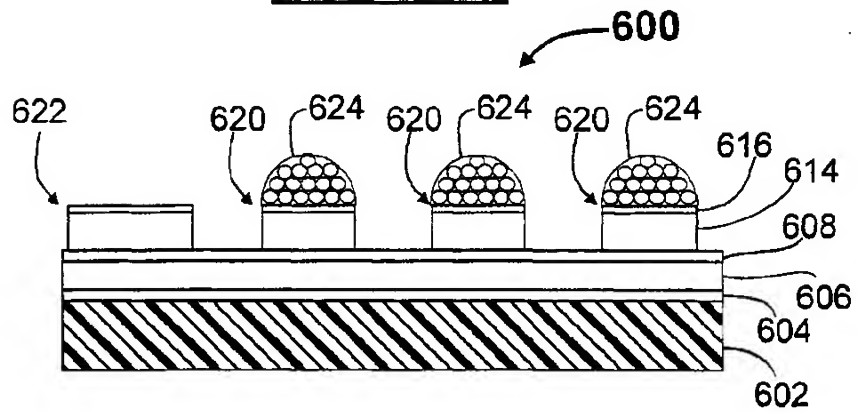
Figure 6AFigure 6B

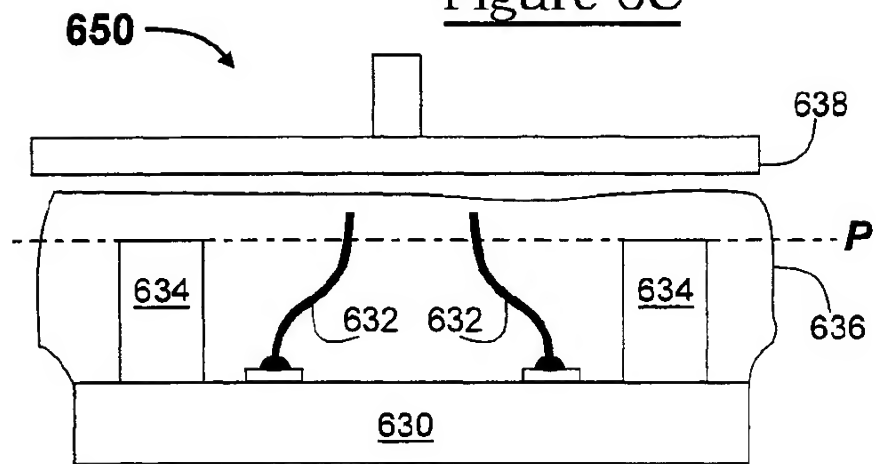
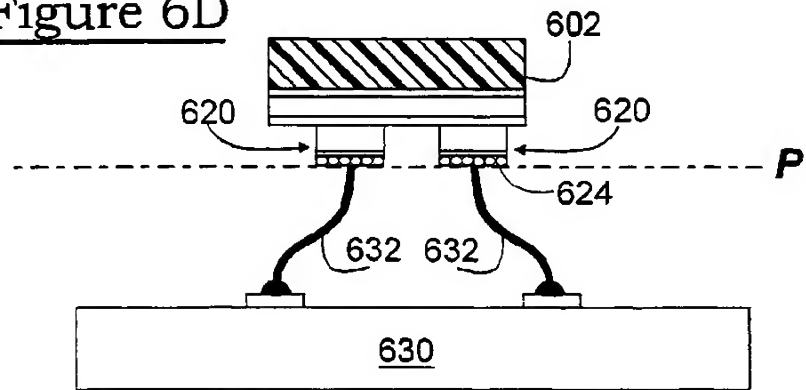
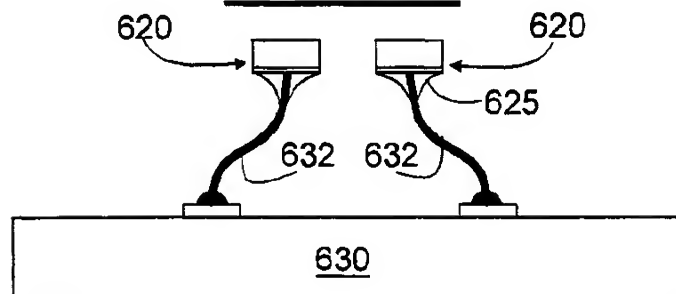
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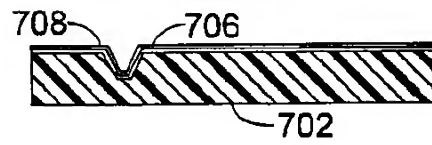
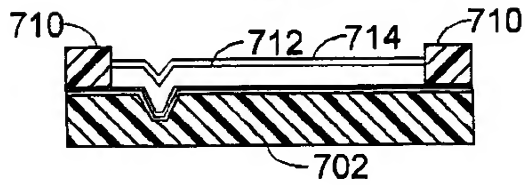
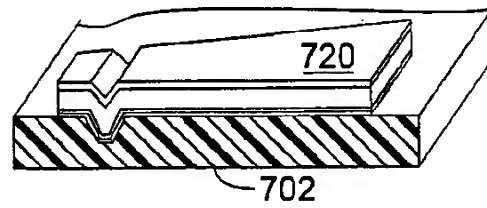
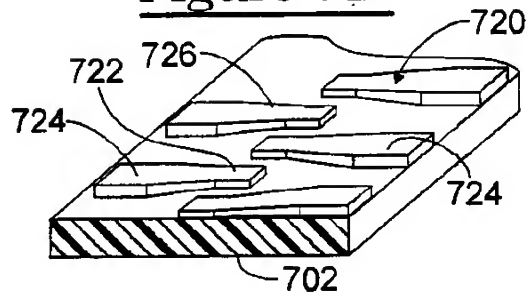
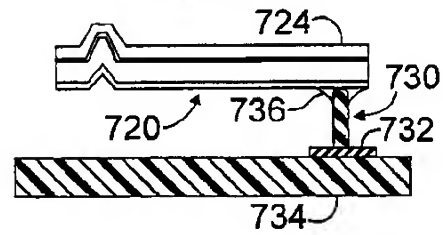
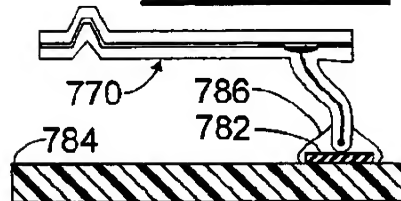
Figure 7A**Figure 7B****Figure 7C****Figure 7D****Figure 7E****Figure 7F****Figure 7H**

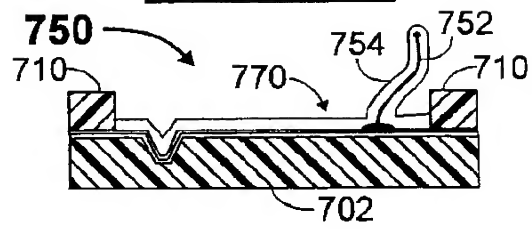
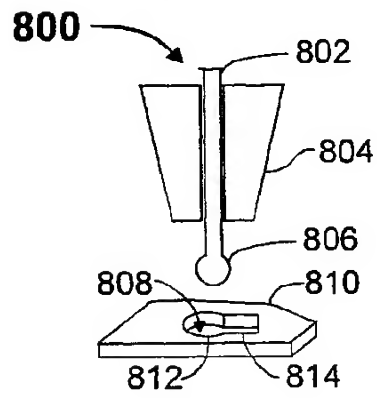
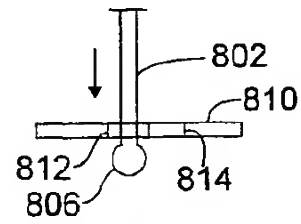
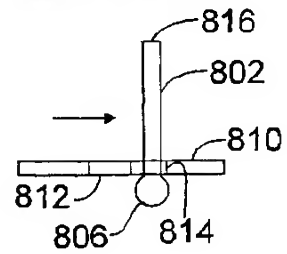
Figure 7GFigure 8AFigure 8BFigure 8C

Figure 9A

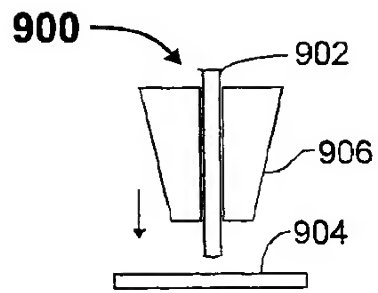


Figure 9B

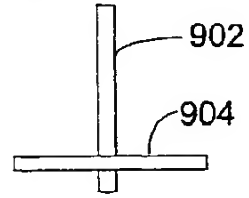
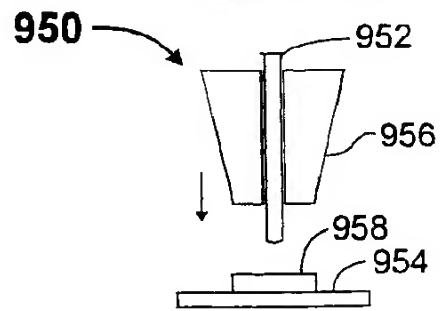


Figure 9C



INTERNATIONAL SEARCH REPORT

 International application No.
 PCT/US96/08107

A. CLASSIFICATION OF SUBJECT MATTER IPC(6) : B23K 31/02 US CL : 228/180.5, 179.1; 29/843, 860, 885; 156/155 According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S. : 228/180.5, 4.5; 29/885, 842, 843; 439/66; 156/155; 228/179.1; 29/860 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched NONE Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) NONE		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, P ----- Y ----- A	US, A, 5,476,211 (KHANDROS) 19 DECEMBER 1995, SEE FIGURES 6A-6C, 14-19	1-3,6,7,12, 14-18,20, 27,28 ----- 4,21 ----- 22-26
X	JP, A, 2-69940 (SEIKO EPSON CORP.) 08 MARCH 1990, SEE ABSTRACT AND FIGURES	14-16
X	JP, A, 4-355940 (NEC CORP.) 09 DECEMBER 1992, SEE ABSTRACT AND FIGURES	14-16
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "A" document member of the same patent family		
Date of the actual completion of the international search 18 SEPTEMBER 1996		Date of mailing of the international search report 11 OCT 1996
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230		Authorized officer Paula A. Bradley Telephone No. (703) 308-1148 <i>Sheila Venev</i> <i>Patrol Legal Specialist</i> <i>Group 3200</i>

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